LEVEL news

Great Lakes - St. Lawrence River Water Levels

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Water Levels for the Great Lakes and Montreal Harbour *a monthly bulletin from Canadian Hydrographic Service*

About the monthly Water Level bulletin

February Precipitation Over the Great Lakes

As a percentage of the long-term February average:

Great Lakes Basin 58%

Lake Erie (including Lake St. Clair) 66%

Lake Superior 43%

Lakes Michigan-Huron 50%

Lake Ontario 92%

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Ice Conditions Impact Lake St. Clair Water Levels

Cold Temperatures Promote the Formation of Ice

Temperatures well below normal were reported throughout the Great Lakes region during much of February. As a result, at the beginning of March only large portions of lakes Michigan and Ontario remained ice free.

The extensive ice cover will reduce or prevent further evaporation of water from the lakes and help bring an end to their seasonal decline in water levels.

Water levels on all of the Great Lakes continued to decline during February. As indicated in the attached water level information table, at the beginning of March, water levels on all lakes were well below their long-term average levels and much lower than they were last year. Water levels on all lakes, except Lake Superior, are also lower than they were at the same time during 2001.

Although many of the water level differences provided in the table are notable, two values (shown in bold) warrant further discussion. As indicated, water levels on Lakes Michigan-Huron began March, 59 cm below average. This value accurately reflects the present water condition on these lakes relative to average. The 46 cm value shown for Lake St. Clair, however, may not truly reflect the lake's relative water level condition. Daily water levels on Lake St. Clair have been varying significantly since mid-February in response to ice conditions on the lake and in the St. Clair and Detroit rivers. Once ice conditions ease and water levels stabilize, we will be able to get a better idea of how Lake St. Clair levels compare to average. It must be noted, however, that Lake St. Clair daily levels can also be affected by the volume and timing of spring runoff from its local drainage basin.

Great Lakes Water Level Information

	February Monthly Mean Level		Beginning of March Level	
Lake	Compared to Monthly Average (1918-2001)	Compared to One Year Ago	Compared to Beginning-of-Month Average (1918-2001)	Compared to One Year Ago
Superior	22 cm below	7 cm below	23 cm below	8 cm below

Note: These figures are preliminary.

February Outflows From the Great Lakes

As a percentage of the long-term February average:

Lake Superior 92%

Lake Erie 92%

Lake Huron 96%

Lake Ontario 91%

Note: These figures are preliminary.

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Summary information for "LEVEL*news*"

Michigan-Huron	58 cm below	20 cm below	59 cm below	23 cm below
St. Clair	19 cm below	17 cm below	46 cm below	39 cm below
Erie	24 cm below	24 cm below	26 cm below	24 cm below
Ontario	29 cm below	39 cm below	32 cm below	45 cm below

Water Level Outlook

Lake Superior is expected to continue its seasonal decline during March while Lakes Michigan-Huron will likely remain relatively level for the next few weeks. Lakes St. Clair, Erie, and Ontario should begin their seasonal rise in the coming weeks. Please refer to the Monthly Water level Bulletin for the latest 6-month water level forecast.

Lake Erie-Niagara River Ice Boom

The Lake Erie-Niagara River Ice Boom had 12 of its 22 spans forced open as the result of a storm event over the Buffalo/Fort Erie area on February 4th. This is the greatest number of spans opened by storm action since the boom was initially installed in 1964. Although lake ice entered the Niagara River for several hours, there was no ice jamming, instances of flooding or reports of shoreline property damage.

Each span of the boom is made up of floating steel pontoons anchored to the lake bed at 122 m intervals by a 6.4 cm diameter steel cable. The pontoons are 76 cm in diameter and 9 m long. In addition to opening spans, pressure from the ice detached around 10 percent of the pontoons and several floatation barrels. These were retrieved from the upper Niagara River once the storm subsided. Repairs to damaged components of the boom and re-attachment of the spans were completed on February 26th.

Ripple Effects Newsletter

The third volume of the International Lake Ontario - St. Lawrence River Study's newsletter Ripple Effects is now available in hard copy and on-line.

If you would like to receive a printed copy of Ripple Effects by mail, please contact the Study's Public Information Officer at (613) 992-5727.

Now a quarterly publication, expect to receive LOSL news more often!

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